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WILLINGNESS TO PAY FOR THE DEVELOPMENT OF AGRO-TOURISM FACILITIES IN BANDUNGAN DISTRICT, SEMARANG REGENCY (A CASE STUDY AT THE SETIYA AJI FLOWER FARM)

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ABSTRAK

Kabupaten Semarang mempunyai potensi agrowisata yang sangat besar. Tanah vulkanik yang cocok untuk menanam dan suhu yang sejuk mendukung untuk dijadikan tempat rekreasi. Penelitian dilakukan di Setiya Aji Flower Farm (SAFF) yang merupakan agrowisata bunga krisan di Desa Jetis Kecamatan Bandungan yang dikelola oleh kelompok tani dan masyarakat setempat. Pengelolaannya masih sangat sederhana dengan memanfaatkan masa sebelum panen bunga krisan untuk wisata. SAFF mampu mendatangkan wisatawan sejumlah 107.966 selama tahun 2017, dengan tiket masuk saat ini Rp 7.500 menghasilkan pendapatan tambahan yang cukup banyak bagi masyarakat desa Jetis. Tetapi pada tahun 2018 jumlah wisatawan menurun sampai 65% menjadi rata-rata 3.127 wisatawan per bulan. Salah satu penyebab berkurangnya kunjungan wisatawan adalah ketidaksiapan SAFF dalam menghadapi persaingan obyek wisata baru dengan tema sejenis di sekitar SAFF yang dikelola dengan sangat baik dan terus bertumbuh. Tujuan dari penelitian ini adalah untuk memperkirakan kesediaan pengunjung untuk membayar fasilitas tambahan di SAFF Bandungan Kabupaten Semarang. Penelitian ini menerapkan Metode Penilaian Kontingensi (CVM) pada 110 pengunjung. Hasilnya menunjukkan bahwa mayoritas pengunjung mau membayar untuk fasilitas tambahan di agrowisata SAFF. Kesediaan membayar (WTP) diperkirakan Rp 13.000. Hasil ini memberikan wawasan kepada pengelola SAFF untuk menaikan tiket masuk dengan penambahan fasilitas di SAFF.

Kata Kunci: agrowisata**,** *contingent valuation method*, *willingness to pay*

ABSTRACT

Semarang Regency has a great agro-tourism potential. Volcanic soil suitable for planting and cool temperatures support it to be a place of recreation. The study was conducted at Setiya Aji Flower Farm (SAFF), a chrysanthemum agro-tourism in Jetis village, Bandungan District, which is managed by farmer groups and local communities. The management is still very simple by utilizing the pre-harvest chrysanthemum flowers for tourism. SAFF was able to bring in 107,966 tourists during 2017, with an entrance ticket currently at Rp 7,500 generates substantial additional income for the people of Jetis village. Unfortunately, the number of tourists decreased until 65% to an average of 3,127 tourists per month in 2018. One of the causes of the reduction in tourist visits was the unpreparedness of the SAFF to face of competition with new tourist objects with similar themes around SAFF that were very well managed and continued growing. The purpose of this study was to estimate the willingness of visitors to pay for additional facilities at SAFF Bandungan, Semarang Regency. This study used the Contingency Assessment Method (CVM) to 110 visitors. The results showed that the majority of visitors are willing to pay for additional facilities at SAFF agrotourism. Willingness to pay (WTP) is estimated at level Rp 13,000. These results provide insights to the manager of SAFF to raise the entrance ticket by adding facilities at SAFF.

Keywords: *agrotourism, contingent valuation method, willingness to pay*

INTRODUCTION

The potential for natural resources and tourism development in Semarang Regency is very high. This is proofed by the number of tourist visits from 2011 to 2017 which increased by 21.88% or 2,502,333 people in 2017 as presented in Table 1. Semarang Regency is the largest chrysanthemum production center in Central Java with a production of 136,149,950 of a total of 137,970,928 stalks and it is spread across 3 districts, including Bandungan (87.5%), Sumowono (12.2%), and Ambarawa (0.3%) (Statistics Indonesia, 2017). The combination of agricultural potential, natural beauty, and supportive community life leads Bandungan District to become a prospective agro-tourism. This study focused on Setiya Aji Flower Farm, Jetis Village, Bandungan District, which is a chrysanthemum agro-tourism managed by the locals. The concept of this agro-tourism is simple, which is by utilizing chrysanthemums before they are harvested for tours or taking selfies while enjoying their beauty.

Setiya Aji Flower Farm was opened to the public in 2016 and attract a lot of tourists with an average number of visitors of 8,997 tourists per month. The peak of tourist visits occurred in July 2017 with a total of 13,423 visitors. From February 2018, the number of visitors has decreased due to the opening of a new tourist attraction with a flower garden concept around Bandungan, which has attracted many tourists to visit there.

The objective of the study was to analyze the economic potential of SAFF Agro-tourism by measuring the willingness and ability of tourists to pay more for the development and addition of facilities in SAFF Agro-tourism.

RESEARCH METHODS

The determination of the research location was carried out purposively based on the objective of the study, which was Agro-tourism of Chrysanthemum Setiya Aji, Bandungan District, Semarang Regency, with the consideration that the agro-tourism was managed jointly by the local community. The Slovin formula was used to determine a sample size of 110 respondents who visited the agro-tourism. The method used was the Contingent Valuation Method (CVM) analysis. The basic approach of the CVM model explains a specific policy scenario hypothetically as outlined in a questionnaire and is asked to respondents to determine the real Willingness to Pay (WTP) value of a good or service (Johnson e.t al., 1998). The stages in the application of CVM analysis (Hanley and Spash, 1993) include:

1. Determining the Hypothetical Market
   The initial stage in implementing CVM is to create a hypothetical market and questions about the value of environmental goods/services. This hypothetical market constructs a reason why people should pay for environmental goods/services in which there is no value of price in the currency of the environmental goods services.
2. Obtaining Bids of the WTP Value
   Once the questionnaire is completed, sampling is carried out through direct

Table 1. Number of Tourists in Semarang Regency 2011-2017

Years	Local Tourist (people)	Foreigner Tourist (people)	Total (people)
2011	1.170.079	4.071	1.174.150
2012	1.276.228	3.622	1.279.850
2013	1.362.777	2.694	1.366.460
2014	1.532.921	2.694	1.535.615
2015	1.668.273	3.533	1.671.806
2016	1.980.259	23.924	2.004.183
2017	2.493.440	8.893	2.502.333

Source: Statistics Indonesia, 2017

interviews with respondents. The WTP value is determined through the payment card method, which is a method in which the respondent is offered some options and is only allowed to choose one of the payment options that the respondent afford to pay.

3. Calculating the Average WTP value
   Once the data regarding the WTP value have been collected, the next step is to determine the median and mean of the WTP value. The estimated average WTP is calculated using the following formula:

$$EWTP = \frac{\sum_{i=1}^{n} Wi}{n}$$

   Notes:
   EWTP = Estimated average WTP
   Wi = i-value of WTP
   n = Number of respondents
   i = i-respondent who is willing to pay (i=1,2,….,n)

4. Aggregating Data
   Aggregating data is a process in which the average offer is converted to the total population using the following formula:

$$TWTP = \sum_{i=1}^{n} WTP_i \left(\frac{n_i}{N}\right) P$$

   Notes:
   TWTP = Total WTP
   WTP i = Individual i-sample of WTP
   ni = The number of i-sample who are willing to pay WTP
   N = Number of samples
   P = Number of population
   i = i-respondent who is willing to pay (i=1,2,….,n)

RESULTS AND DISCUSSION

Tourist Characteristics of Setiya Aji Flower Farm

Analysis of tourists is very essential to planning, diversification of tourism objects, carrying capacity of objects, analysis of market segmentation, promotional strategies, etc. The identification of tourist in a tourism site can also be used as an overview of market needs. The scope of the analysis of tourists (Wiratno in Fandeli, 2000) is as follows: (1) visit patterns, (2) spatial distribution of tourists, (3) purpose of visit, (4) age classification, and (5) means of transportation. The principal approach of the market segmentation is divided into geographic, demographic, psychographic, and behavioral approaches (Spillane in Fandeli, 2000). This comprehension will allow tourism service managers to see market opportunities and formulate correct strategies to increase the number of tourist visits. The results of segmentation are then manifested in the form of development of tourism activities, offered attractions, tourism supporting facilities, and effective marketing communications. The respondents in this study were tourists of Agro-tourism of Chrysanthemum Setiya Aji Flower Farm. The number of respondents who filled out the questionnaire was 110 respondents from the total tourist population of 37,520 people in 2018. The socio-economic characteristics are shown in Table 2, with the following explanation:

1 Geographical Characteristics
   The majority of tourists are from areas around SAFF Agro-tourism, including Semarang Regency and Semarang City, thus minimizing travel time.

2 Socio-demographic Characteristics
   Gender has an effect on the selection of destinations and activities carried out. Based on the data, most visitors were female because this agro-tourism is a chrysanthemum garden. Flowers are identical to beauty and women mostly like beauty. The majority of visitors who came there were 19-25 years with the senior high school education as their last educational level. Based on this age range, the direction of the agro-tourism development and promotion strategies should be adjusted to the tendencies of young people's interests. Most occupations of the visitors were students and the average income per month was IDR 1,000,000 - 2,000,000. The entrance ticket price of

IDR 7,500 which is affordable is the reason why students preferred to visit this agro-tourism. The tourists came to SAFF agro-tourism in groups. The highest percentage of the group was 2 people at 63% and 4 people at 26%. The tourists generally make a visit with friends and family. The majority of tourists visited SAFF Agro-tourism for the first time because they were curious by the information from photos on social media about the beauty of the chrysanthemum garden. This is another challenge for SAFF Agro-tourism to be able to make this place visited by repeater tourist by adding unique facilities or attractions to make the tourists want to always visit this place.

3 Behavioral Characteristics

The behavioral characteristics of tourists in visiting Setiya Aji Flower Farm Agro-tourism were to enjoy the beauty of chrysanthemums and take pictures to post them on their social media. The travel costs spent an average of IDR 100,000. The

Table 2. Respondents' Socio-Economic Characteristics

	Description	Frequency	Percentage
Age (years)	16-25	94	85
	26-35	8	7
	36-45	7	6
	> 46	1	1
Sex	Male	25	23
	Female	85	77
Occupation	Civil Servant	10	9
	Private	14	13
	Student	83	75
	Don't Have a Job	3	3
Income	< 1.000.000	1	2
	1.000.000-2.000.000	90	81
	2.000.001- 5.000.000	17	15
	>5.000.001	2	2
Length of Visit (hour)	1	52	47
	1,5	29	26
	2	29	26
Number of Groups (person)	2	69	63
	3	5	4
	4	26	23
	5	4	4
	>5	6	6
	9	1	1
	10	1	1
Formal Education (years)	Junior High School	2	2
	Senior High School	75	68
	Bachelor	29	26
	Master	4	4
Origin	Semarang	91	83
	Outside Semarang	19	17

Travel Expense	50.000	7	6
(Rupiah)	100.000	60	55
	150.000	22	20
	200.000	12	11
	250.000	3	3
	300.000	3	3
	350.000	1	1
	400.000	1	1
	450.000	1	1
Prices for Other Tours	100.000	61	55
(Rupiah)	150.000	6	5
	200.000	27	25
	250.000	10	9
	300.000	4	4
	450.000	1	1
	500.000	1	1

Source: Primary Data, Processed

highest expenditure on this agro-tourism was only for transportation and entrance tickets for tourism objects. Expenditures for culinary and shopping were still low due to the limited number of merchants selling their merchandise in the tourist area.

4 Tourists and Movement Patterns
The tourists who visited SAFF Agro-tourism had a tendency for multi-trip. The movement pattern of tourists from one object to another is caused by the connection or association between one object to another in an adjacent area. For example, after visiting Setiya Aji Flower Farm Agro-tourism, they continued their tour to Bandungan for shopping and culinary visits, or to Celosia to enjoy their tours with different concepts. Based on the results of the study, it obtained that the costs incurred by the tourists for other tourism objects were higher in value than the expenses spent for the Setiya Aji Flower Farm Agro-tourism. This is due to the limited number of merchants providing culinary and souvenir merchandise in the tourist area.

Contingent Valuation Methods (CVM)

Following are the results of applying the Contingent Valuation Method (CVM) in the study:

1 Building the Hypothetical Market was carried out by calculating the investment value divided by the total population, so

Tabel 3. Hypothetic Investment Value Market-Scenario 1

Description	X	Quantity	Unit	Price	Total
Making photo spots		5	Unit	10.000.000	50.000.000
Transport and installation fees	5	7	Working people's day	75.000	2.625.000
Maintenance fee for the SAFF area	2	12	Working people's day	1.000.000	24.000.000
Total					**76.625.000**

Source: Primary Data, Processed

Figure 1. Market Hypothetical - Scenario 1 (Rp. 2.000)
Source: http://www.indozone.id/ and researcher documentation

that it obtained the Willingness to Pay (WTP) value that is presented in Table 3-6.

a Scenario 1
Adding photo spots
Environmental maintenance
Bid Value for Scenario 1
= Cost for Scenario 1 : Number of Tourists
= IDR 76,625,000 : 37,520
= IDR 2,042 ~ IDR 2,000

b. Scenario 2:
Adding photo spots
Environmental maintenance
Building a Welcome Gate
Bid Value for Scenario 2
= Cost for Scenario 2 : Number of Tourists

Table 4. Hypothetic Investment Value Market-Scenario 2

Description	X	Quantity	Unit	Price	Total
Making photo spots		10	Unit	5.000.000	50.000.000
Transport and installation fees	5	7	Working people's day	75.000	2.625.000
Maintenance fee for the SAFF area	2	12	Working people's day	1.000.000	24.000.000
Building a welcome gate		1	Unit	10.000.000	10.000.000
Total					**86.625.000**

Source: Primary Data, Processed

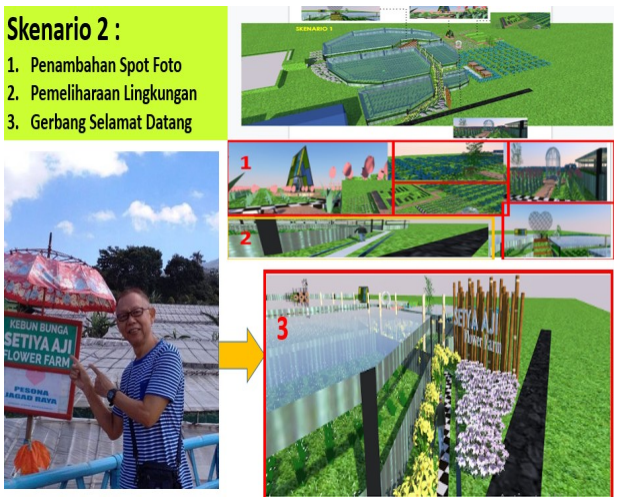

Figure 2. Market Hypothetical - Scenario 2 (Rp. 2.300)
Source: https://www.tripadvisor.co.id/ and and researcher documentation

Table 5. Hypothetic Investment Value Market-Scenario 3

Description	X	Quantity	Unit	Price	Total
Making photo spots		10	Unit	5.000.000	50.000.000
Transport and installation fees	5	7	Working people's day	75.000	2.625.000
Maintenance fee for the SAFF area	2	12	Working people's day	1.000.000	24.000.000
Building a welcome gate		1	Unit	10.000.000	10.000.000
Building Gazebo		3	Unit	10.000.000	30.000.000
Total					**116.625.000**

Source: Primary Data, Processed

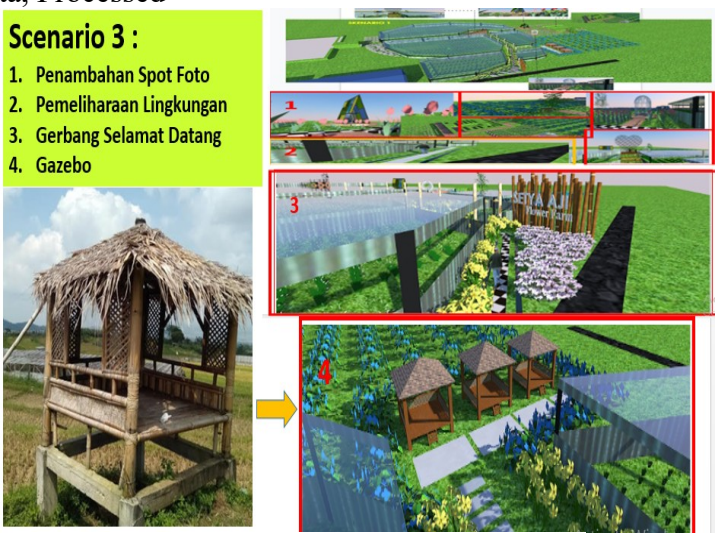

Figure 3. Market Hypothetical - Scenario 3 (Rp. 2.300)
Source: researcher documentation

= IDR 86,625,000 : 37,520
= IDR 2,308 ~ IDR 2,300

c. Scenario 3:
Adding photo spots
Environmental maintenance
Building a Welcome Gate
Gazebo
Bid Value for Scenario 3
= Cost for Scenario 3 : Number of Tourists
= IDR 116,625,000 : 37,520
= IDR 3,108

d. Scenario 4:
Addition of thematic tourist spots with the concept of a Javanese village and a traditional culinary center
Bid Value for Scenario 4
= Cost for Scenario 4 : Number of Tourists
= IDR 281,400,000 : 37,520
= IDR 7,500

2. Calculating the Estimated Average WTP value

To determine the respondent's willingness to pay and to find out the WTP value to be paid, it is obtained through interviews by using a questionnaire. Based on the results of the study in the field, all respondents were willing to pay more for the scenario offered excluding the current entrance ticket price as presented in Table 7.

The percentage of respondents selecting scenario 4 was 55% with a design as presented in Figure 1 attached. Once the distribution of the WTP value was obtained from the respondents who were willing to pay more, the next step was to eliminate the average WTP value to determine the average willingness and ability of respondents to pay for a number

Table 6. Hypothetic Investment Value Market-Scenario 4

Description	X	Quantity	Unit	Price	Total
Building pendopo (16 x 6 m)		1	Unit	50.000.000	50.000.000
Building joglo for culinary spot (3 x 3 m)		10	Unit	5.000.000	50.000.000
Paving block		1	Package	80.000.000	80.000.000
Fence		1	Unit	50.000.000	50.000.000
Traditional photo spot equipment: Old bicycles, Javanese clothes, musical instruments, cutlery and traditional games		1	Package	30.000.000	30.000.000
Plant		1	Package	27.400.000	27.400.000
	2	12	Working People's day	1.000.000	24.000.000
Total					**281.400.000**

Source: Primary Data, Processed

Figure 4. Market Hypothetical - Scenario 4 (Rp. 7.500)

Source: https://www.youtube.com/watch?v=NlE6ebvX6K4 and and researcher documentation

of tour packages by using the following formula:

$$EWTP = \frac{596{,}900}{110}$$

= IDR 5,426 or IDR 5,500

Based on the calculation of the distribution of the respondents' WTP value above, the average WTP value of the respondents is

Table 7. WTP Mean Value

No	WTP	Respondents	Percentage (%)	WTP x Respondents who are willing to pay
1	Rp. 2.000	3	3	Rp. 6.000
2	Rp. 2.300	6	5	Rp. 13.800
3	Rp. 3.100	41	37	Rp. 127.100
4	Rp. 7.500	60	55	Rp. 450.000
Total		**110**	**100**	**Rp. 596.900**

Source: Primary Data, Processed

Table 8. Total Value of WTP

Description	Amount (a)	Research Population (b)	Total WTP per year (a x b)
Average value of WTP for additional facilities	Rp. 5.500	37.520	Rp. 206.360.000
Ticket price currently	Rp. 7.500	37.520	Rp. 281.400.000
Total	**Rp. 13.000**	**37.520**	**Rp. 487.760.000**

Source: Primary Data, Processed

IDR 5,426 or rounded to IDR 5,500. The average WTP value of IDR 5,500 added with the current entrance ticket price of IDR 7,500 resulted in a total of IDR 13,000 per tourist which can be used as a reference in determining the entrance ticket price that can be applied to tourists. The determination of entrance ticket price of IDR 13,000 is still lower than that of other similar attractions, which mostly is between IDR 15,000 - IDR 25,000. It is expected that it will be able to attract more tourists to visit.

3. Aggregating data to determine the total WTP value

   The total aggregate of WTP value is the total value of the average WTP value multiplied by the number of research population which functions to estimate the total value of the potential WTP obtained as a projection for the design of the chrysanthemum tour package at the Setiya Aji, Bandungan. Based on the results of the calculation of the total WTP of Setiya Aji Flower Farm in Bandungan District in the table, it obtained the total WTP value of the visitor population in one year, which is IDR 487,760,000 as presented in Table 8. This value is the projection value of the willingness and ability of tourists to pay for the further entrance ticket price, which can be used as material for the implementation of the management program at the Agro-tourism of Chrysanthemum Setiya Aji, Bandungan.

CONCLUSIONS

Based on the results of the study, the major visitor characteristics were students aged 16-25 years who came in groups with the highest percentage of 2 people per visit at 69%, with a percentage of 77% for female visitors. The highest income is IDR 1,000,000 - IDR 2,000,000. The overview of tourist characteristics is the basis for making a hypothetical market to measure tourists' willingness to pay for additional facilities for the development of the chrysanthemum agro-tourism. Of the 4 scenarios offered to visitors of the Setya Aji Flower Farm with additional facilities including photo spots and thematic tours, it obtained that the average willingness to pay was IDR 5,500 and the total WTP in one year was IDR 487,760,000. This value is a projection of the willingness and ability of tourists to pay additional entrance ticket fees for additional agro-tourism facilities.

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